## Case 3385

## *Termes serratus* Froggatt, 1898 (currently *Microcerotermes serratus*) and *Termes serrula* Desneux, 1904 (currently *Microcerotermes serrula*) (Insecta, Isoptera, TERMITINAE): proposed conservation of the specific names

## David T. Jones

Department of Entomology, Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: dtj@nhm.ac.uk)

Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the specific names *Termes serratus* Froggatt. 1898 (currently *Microcerotermes serratus*) and *Termes serrula* Desneux, 1904 (currently *Microcerotermes serrula*) (Isoptera, TERMITINAE) for two species of termite. Both names are currently invalid: *T. serratus* Froggatt, 1898 is a junior primary homonym of *T. serratus* Haviland, 1898 and *T. serrula* Desneux, 1904 is an unjustified replacement name for *T. serratus* Haviland, 1898. However, the name *T. serratus* Froggatt has been used since its publication to refer to an Australian termite species, while the name *T. serrula* Desneux, 1904 has been used since its publication to refer to a species from Southeast Asia. Roisin & Pasteels (2000) proposed that the name *T. serratus* Froggatt, 1898 should be replaced with *T. parviceps* Mjöberg, 1920, its earliest synonym, and that the name *T. serrula* Desneux, 1904 should be replaced with *T. serratus* Haviland, 1898. However, these corrections would result in considerable confusion and nomenclatural instability, and it is therefore proposed that the specific names be conserved.

Keywords. Nomenclature; taxonomy; Isoptera; TERMITIDAE; TERMITINAE; Microcerotermes serratus; Microcerotermes serrula; termites; Southeast Asia; Australia.

<sup>1.</sup> Haviland (1898, p. 403) described a common wood-feeding termite from Borneo as *Termes serratus*. The date of publication was 1st April 1898.

<sup>2.</sup> Froggatt (1898, p. 731) described *Termes serratus*, a common species from Australia. The volume is dated 1897, but the actual date of publication was 4th June 1898 (see Watson et al., 1998, p. 232; Roisin & Pasteels, 2000, p. 165). Therefore *Termes serratus* Froggatt, 1898 is a junior primary homonym of *Termes serratus* Haviland, 1898.

<sup>3.</sup> Desneux (1904, p. 45), probably misled by the confusion over the year of publication (see para. 2), considered *Termes serratus* Froggatt, 1898 to have priority, and thus proposed *Termes serrula* as a nomen novum for *T. serratus* Haviland, 1898. Holmgren (1911, p. 461) transferred *T. serratus* Haviland, 1898 to *Microcerotermes* and later Holmgren (1913, p. 262) adopted *M. serrula* (Desneux, 1904) as the valid name for this species. The binomen *Microcerotermes serrula* (Desneux, 1904) has since been widely accepted and used extensively to identify this species which is now known to occur in Borneo, Sumatra and Peninsular Malaysia (Snyder, 1949, p. 145;

Ahmad, 1958, p. 167; Thapa, 1981, p. 172; Tho, 1992, p. 92; Eggleton et al., 1999, p. 1795; Jones & Prasetyo, 2002, p. 121; Jones et al., 2003, appendix; Gathorne-Hardy, 2004, p. 120).

4. Silvestri (1909, p. 304) transferred *Termes serratus* Froggatt, 1898 to *Microcero-termes*, and this binomen was adopted by Mjöberg (1920, p. 105), Hill (1942, p. 411), Snyder (1949, p. 145), Perry et al. (1985, p. 69), Watson & Abbey (1993, p. 123), Watson et al. (1998, p. 232). Barnacle et al. (1992, p. 36) confirmed the status of *Termes serratus* Froggatt, 1898 as a pest of wooden railway sleepers, and the name has also been used in the ecological literature to identify this widespread Australian species (Ratcliffe et al., 1952, p. 115; Gay & Calaby, 1970, p. 431; Holt et al., 1993, p. 314).

5. Mjöberg (1920, p. 103) described *Microcerotermes parviceps* from Australia. However, Hill (1942, p. 442) considered *M. parviceps* Mjöberg, 1920 to be a junior synonym of *M. serratus* (Froggatt, 1898), an opinion supported by Snyder (1949, p. 145) and Watson et al. (1998, p. 232). Apart from Hill (1927, p. 70) and Roisin & Pasteels (2000, p. 166, but see para. 6 below), the name *M. parviceps* Mjöberg, 1920 has never been used as valid in the literature since its publication.

6. Roisin & Pasteels (2000, p. 165) discovered the error over priority (see paras. 1 and 2) and proposed the following corrections under Articles 53.3 (Homonyms in the species group), 57.2 (Primary homonyms) and 60.2 (Junior homonyms with synonyms) of the Code. *Termes serratus* Haviland, 1 April 1898 (currently *Microcerotermes serratus*) is valid. *Termes serratus* Froggatt, 4 June 1898 (currently *Microcerotermes serratus*) is invalid being a junior primary homonym of *T. serratus* Haviland, 1898. *Termes serrula* Desneux, 1904 (currently *Microcerotermes serrula*) is invalid being an unjustified replacement for *T. serratus* Haviland, 1898. *Microcerotermes parviceps* Mjöberg, 1920, replaces *Microcerotermes serratus* (Froggatt, 1898) because it is the earliest synonym.

7. As noted in paras. 3 and 4 above, the names *Microcerotermes serrula* (Desneux, 1904) and *M. serratus* (Froggatt, 1898) are both currently in use for well-known and common species in Southeast Asia and Australia respectively. These two taxa have never been considered conspecific. Replacement of the name *M. serrula* (Desneux, 1904) by the valid but unused name *M. serratus* (Haviland, 1898) would cause considerable confusion and may be misunderstood as implying that the Australian species now occurs in Southeast Asia. Furthermore, the formally correct act of replacing the name *M. serratus* (Froggatt, 1898) with the valid but unused name *M. parviceps* Mjöberg would also lead to confusion within the Australian termite fauna. The corrections outlined in para. 6 would result in unnecessary confusion and inconsistencies rather than nomenclatural stability. The case is therefore referred to the Commission under Article 23.9.3 of the Code.

8. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power:
  - (a) to suppress the specific name *serratus* Haviland, 1898, as published in the binomen *Termes serratus*, and all uses of the name *Termes serratus* before Froggatt, 1898 for the purposes of both the Principle of Priority and the Principle of Homonymy;

- (b) to rule that the specific name *serrula* Desneux, 1904, as published in the binomen *Termes serrula*, is not invalid by reason of being an unjustified replacement for the name *Termes serratus* Haviland, 1898;
- (2) to place on the Official List of Specific Names in Zoology the following names:
  - (a) serratus Froggatt, 1898, as published in the binomen Termes serratus;
  - (b) *serrula* Desneux, 1904, as published in the binomen *Termes serrula* (not invalid by reason of being an unjustified replacement for the name *Termes serratus* Haviland, 1898, as ruled in (1)(b) above);
- (3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *serratus* Haviland, 1898, as published in the binomen *Termes serratus* and as suppressed in (1)(a) above.

## References

- Ahmad, M. 1958. Key to the Indomalayan termites. Biologia, 4: 33-118.
- Barnacle, J.E., Creffield, J.W. & Miller, L.R. 1992. Attack of oil creosote-treated rail sleepers of karri (*Eucalyptus diversicolor* F. Muell.) by *Microcerotermes* spp. in north Western Australia. *Material und Organismen*, 27: 31–45.
- Desneux, J. 1904. Isoptera. Family Termitidae. Pp. 1–52 in: Genera Insectorum. Fasc. 25. Wytsman, Brussels.
- Eggleton, P., Homathevi, R., Jones, D.T., MacDonald, J., Jeeva, D., Bignell, D.E., Davies, R.G.
  & Maryati, M. 1999. Termite assemblages, forest disturbance and greenhouse gas fluxes in Sabah, East Malaysia. *Philosophical Transactions of the Royal Society of London, Series B*, 354: 1791–1802.
- Froggatt, W.W. 1898. Australian Termitidae. Part 111. Proceedings of the Linnean Society of New South Wales, 22: 721–758.
- Gathorne-Hardy, F.J. 2004. The termites of Sundaland: a taxonomic review. Sarawak Museum Journal, 60: 89–133.
- Gay, F.J. & Calaby, J.H. 1970. Termites of the Australian region. Pp. 393–448 in Krishna, K. & Weesner, F.M. (Eds.). *Biology of Termites*, vol. 2. Academic Press, New York.
- Haviland, G.D. 1898. Observations on termites; with descriptions of new species. *Journal of the Linnean Society of London, Zoology*, 26: 358–442.
- Hill, G.F. 1927. Termites from the Australian region Part 1. Memoirs of the National Museum, Melbourne, 7: 5–120.
- Hill, G.F. 1942. Termites (Isoptera) from the Australian Region. 479 pp. CSIRO, Melbourne.
- Holmgren, N. 1911. Neu-Guinea-Termiten. Mitteilungen aus dem Zoologischen Museum in Berlin, 5: 452–466.
- Holmgren, N. 1913. Termitenstudien. 4. Versuch einer systematischen Monographie der Termiten der orientalischen Region. Kungliga Svenska Vetenskapsakademiens Handlingar, 50: 1–276.
- Holt, J.A., Robertson, L.N. & Radford, B.J. 1993. Effects of tillage and stubble residue treatments on termite activity in two central Queensland vertosols. *Australian Journal of Soil Research*, **31**: 311–317.
- Jones, D.T. & Prasetyo, A.H. 2002. A survey of the termites (Insecta: Isoptera) of Tabalong district, South Kalimantan, Indonesia. *Raffles Bulletin of Zoology*, **50**: 117–128.
- Jones, D.T., Susilo, F.X., Bignell, D.E., Hardiwinoto, S., Gillison, A.N. & Eggleton, P. 2003. Termite assemblage collapse along a land-use intensification gradient in lowland central Sumatra, Indonesia. *Journal of Applied Ecology*, 40: 380–391.
- Mjöberg, E. 1920. Results of Dr E. Mjöberg's Swedish scientific expedition to Australia, 1910–1913. 19. Isoptera. Arkiv för Zoologi, 12: 1–128.
- Perry, D.H., Watson, J.A.L., Bunn, S.E. & Black, R. 1985. Guide to the termites (Isoptera) from the extreme south-west of Western Australia. *Journal of the Royal Society of Western Australia*, 67: 66–78.

- Ratcliffe, F.N., Gay, F.J. & Greaves, T. 1952. Australian termites: the biology, recognition, and economic importance of the common species. 124 pp. CSIRO, Melbourne.
- Roisin, Y. & Pasteels, J.M. 2000. The genus *Microcerotermes* (Isoptera: Termitidae) in New Guinea and the Solomon Islands. *Invertebrate Taxonomy*, 14: 137–174.
- Silvestri, F. 1909. Isoptera. Pp. 279–314 in Michaelsen, W. & Hartmeyer, R. (Eds.), Die Fauna Südwest-Australiens, vol. 2. Gustav Fischer, Jena.
- Snyder, T.E. 1949. Catalog of the termites (Isoptera) of the world. *Smithsonian Miscellaneous Collections*, **112**: 1–490.

Thapa, R.S. 1981. Termites of Sabah. Sabah Forest Record, 12: 1-374.

Tho, Y.P. 1992. Termites of Peninsular Malaysia. Malayan Forest Records, 36: 1-224.

Watson, J.A.L. & Abbey, H.M. 1993. Atlas of Australian Termites. 155 pp. CSIRO, Canberra.

Watson, J.A.L., Miller, L.R. & Abbey, H.M. 1998. Isoptera. Pp. 163–250 in Houston, W.W.K. & Wells, A. (Eds.), *Zoological catalogue of Australia*, vol. 23. CSIRO, Melbourne.

Acknowledgement of receipt of this application was published in BZN 63: 154.

Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., clo Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).